

EFFECTS OF SELECTED YOGIC EXERCISES ON FEMALE TYPE II DIABETES PATIENTS

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Abstract

Background: India's one of the most ancient god gifted physical activity is yoga, which preventing and curing all types of physical as well as mental diseases suffering from human being. In spite of these our country has a large number of diabetic patients in the world itself. So yoga is must for every person with in or out side India.

Aims and Objective: The objective of the study is to prove that practice of specific yogic exercises would be significantly reduce lifestyle diseases like type II diabetes problem among women between the age group of 30 to 40.

Materials and Methods: The study includes, 15 experimental and 15 control group, totally 30 female type II diabetes participants between the age group of 30 to 40 years in the area of North Kanara District. To achieve the purpose the experimental group of female type II diabetes patients had under gone 6 months training of selected yogic exercises for six days a week in the morning session from 6 a.m. to 7 a.m. which included yogasana, pranayama with bandhas and mudras. On the other hand no training for control group of female type II diabetes patients. The testing materials which are used in this study were glucose-meter which are medical instruments used in the KIMS hospital Karwar.

Results: According to the findings, there was a significant difference in fasting blood sugar levels of female type II diabetes samples between the experimental and control groups.. It was found that there was a significant cure on female type II diabetes patients due to yogic exercises.

Conclusion: It is concluded that some of the selected yogic exercises were reduced the fasting blood sugar level of female type II diabetes patients.

KEYWORDS:

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INTRODUCTION

Yoga is a collection of physical, mental, and spiritual exercises or disciplines that originated in ancient India and include the use of precise body postures, breath control, and simple meditation for health and relaxation.

Recent studies have looked at how yoga practise affects biochemical, electrophysiological, cellular, genetic, neuromuscular, and radiological factors. This has made it easier to apply yoga to a variety of ailments, and it is now widely regarded as a clinically valid treatment (Jyotsna VP. 2014). Total cholesterol, triglycerides, low density lipoprotein (LDL), high density lipoprotein (HDL), and blood glucose levels were all lower after yoga practise (Rast,S,D et.al.2013). Asanas, pranayama, mudras, bandha, meditation, awareness, and relaxations all helped to alleviate concomitant illness conditions (Raveendran et.al 2018). Yogasanas, pranayama, and dhyana can all be used as a complementary and alternative treatment for type 2 diabetes. Yoga is a low-cost, low-risk

treatment with no bad side effects. Yoga as a viable therapeutic modality for more rigorous research designs, increased dosage, and long-term evaluation, using theory-based frameworks, and including the intervention, implementation, and evaluation process (Sharma M.et.al.2012). Yoga treatment works by regenerating the pancreas, which is the key gland implicated in diabetes. As a result of elevated stress levels, the blood might become overloaded with sugar (Malhotra V,et.al.2004).

METHODOLOGY

The current study's methodology covers subject selection, training administration, testing factors, and statistical methodologies.

Selection of Subjects

The goal of this study is to see how specific yoga activities affect women with type 2 diabetes who are between the ages of 30 and 40 in the coastal North Kanara district. To meet the study's goal, 50 women with type 2 diabetes were recruited. Those who did not meet the age requirements or who refused to submit to a blood test were disqualified. 15 women were assigned to the experimental group, whereas 15 women were assigned to the control group.

Administration of Training

To achieve the purpose the experimental group of type II diabetic patients had under gone 6 months training of selected yogic exercises for six days a week in the morning session from 6 a.m. to 7 a.m. which included yogasana, pranayama with band has and mudras. On the other hand no training for control group of type II diabetic patients.

Testing Variables:

The testing variables such as fasting blood sugar levels are measured through the instrument called glucose meter. This study using yogic exercise for women type II diabetes patients such as, Mandukasana, Vajrasana, ArdhaMatsyendrasana, Pashuvishramasana, Halasana, Mayurasana, Apana Mudra, Suryamudra, Plavini Pranayam, Kapalabhati Pranayama, and Bastrika Pranayama.

Statistical Technique

Since the study is experimental and researcher wants to know the differences between experimental group and control group's mean after yogic training. Analysis of Co-variance (ANCOVA) statistical technique was used to obtained the desired result. Descriptive statistics was calculated to observe the nature of the data. Significance level was set to 0.05 for all the hypothesis testing.

RESULT

This chapter consist of analysis of data, discussion and results from the collected data of the samples under study. The goal of the study was to see how 24 weeks of yogic yoga training affected women with type 2 diabetes in the North Kanara district's coastline area.

Table no. 1: Descriptive and ANCOVA values of Fasting Blood Sugar Level of Female type II Diabetes Samples

	Experimental Group	Control Group	Source of Variance	Sum of Squares	Df	Mean Square	F-ratio
Pre test Mean	148.00	175.60	Between	0.156	1	0.156	0.005
			Within	918.510	27	34.019	
Post test Mean	97.07	109.47	Between	825.299	1	825.299	24.260*
			Within	918.510	27	34.019	
Adjusted post test mean	97.02	109.51	Between	1153.356	2	576.678	16.952*
			Within	918.510	27	34.019	
Mean Difference	50.93	66.13					

As indicated in table 7, the experimental group's pre-test mean was 148, while the control group's was 175.60. The obtained pre-test F-value was 0.005, which was less than the critical value of 4.21, indicating that there was no statistically significant difference between the subject's pre-test scores. The experimental group's post-test mean was 97.07, while the control group's was 109.47. The obtained post test F-value was 24.260, which was higher than the crucial threshold of 4.21, indicating that the post test mean scores differed significantly.

The pre-test mean, post-test mean, and adjusted post-test means were calculated, and the obtained F-value 16.952 was greater than the critical value 4.19, indicating that the third hypothesis, "It is hypothesised that selected yogic exercises will control on fasting blood sugar levels of type II diabetes in women patients," was accepted. Figure 4 shows the pre-test mean, post-test mean, and corrected post-test means of female fasting sugar levels.

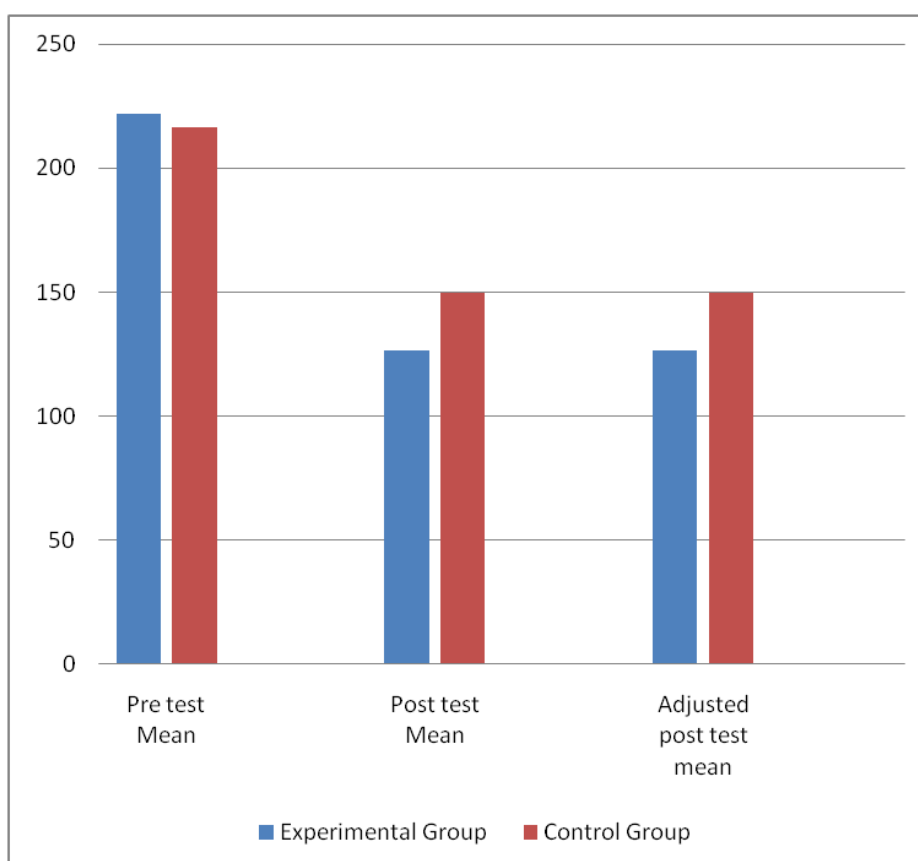


Figure 4: Bar Chart of Pre-Test Mean, Post-Test Mean, and Corrected Post-Test Means of Female type 2 Diabetes Samples' Fasting Sugar Levels.

DISCUSSION AND FINDING

This study found, significant difference among experimental and control group of men acidity patients and significant cure in women type II diabetic patients due to yogic exercises like asana, pranayama with bandhas and mudras. Blood Glucose Estimation (BGE) Fasting, Glucose Tolerance Test (GTT) up to 2 hours after administration of 50gm glucose orally, Systolic Blood Pressure, Diastolic Blood Pressure, BMI, Resting Pulse Rate, and Respiratory Rate were chosen as criteria variables of diabetes patients. As a result, it was discovered that Yogic kriyas have a considerable impact on diabetic patients' physiological variables (Kumar,S. 2018). A 12-week pranayama programme in the management of type 2 diabetes resulted in significant reductions in fasting and postprandial blood glucose levels, followed by the intervention (Narayanapu. K 2018). The practise of certain yogasanas has a decreasing effect on diabetic individuals' blood sugar levels. The amount of random blood sugar in diabetes patients drops after an eight-week training session of yogic activities (Gnanaraj, M. A. 2018). These are studies that revealed a significant reduction in diabetes patients' blood sugar levels using yoga exercises that are connected to this study.

CONCLUSIONS

According to the findings, there was a substantial difference between the experimental and control groups of women with type 2 diabetes. Yoga exercises were found to have a significant reduction in the number of women with type 2 diabetes. This study concluded that some of the selected yogic exercises were reduced the type II diabetic in women patients.

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